ABSTRACT OF THE DISCLOSURE

IDENTIFICATION OF GENE SEQUENCES AND PROTEINS INVOLVED IN VACCINIA VIRUS DOMINANT T CELL EPITOPES

The present invention relates to the identification of gene sequences and proteins involved in vaccinia virus dominant T cell epitopes. Two vaccinia virus $CD8^+$ T cell epitopes restricted by the most common human MHC class I allele, HLA-A0201 have been identified. Both epitopes are highly conserved in vaccinia and variola viruses. The induction of the T cell responses following primary vaccination is demonstrated by the kinetics of epitope specific $CD8^+$ T cells in 3 HLA-A0201 individuals. This information will be useful for the design and analyses of the immunogenicity of experimental vaccinia vaccines, and for basic studies of human T cell memory.